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CLAIMS

1. A process cartridge comprising:

a frame body made up of at least first and second frame
5 bodies that are movable relative to each other to form a
space;

a frame body positioning member positioning the first and
second frame bodies;

a latent image bearing member, supported by the frame
10 body, and replaceable via the space formed by the first and
second frame bodies;

a developing unit supplying a developing agent to the
latent image bearing member; and

a developing position determining member, disposed at a
15 non-overlapping position relative to the frame body
positioning member, and positioning the developing unit with
respect to the frame body.

2. The process cartridge as claimed in claim 1,

20 wherein said developing unit comprises a developing agent
bearing member transporting the developing agent, and a magnet
group provided inside the developing agent bearing member, and
having a predetermined main pole direction; and said
developing position determining member comprises a positioning
25 member positioning the latent image bearing member and the

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developing agent bearing member, and an angular positioning member determining the main pole direction of the magnet group with respect to the latent image bearing member.

5 3. The process cartridge as claimed in claim 1 or 2, further comprising:

 a cleaning unit cleaning residual toner on the latent image bearing member; and

 a cleaning position determining member, disposed at a
10 non-overlapping position relative to the frame body position determining member and the developing position determining member, and positioning the cleaning unit with respect to the frame body.

15 4. The process cartridge as claimed in claim 1 or 2, further comprising:

 a cleaning unit cleaning residual toner on the latent image bearing member; and

 a cleaning position determining member positioning the
20 cleaning unit with respect to the frame body,

 said cleaning unit being replaceable via the space formed by the first and second frame bodies.

 5. The process cartridge as claimed in claim 4,
25 wherein:

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said cleaning unit comprises a cleaning blade removing residual toner on at least the latent image bearing member, a bias roller controlling an amount of charge of the residual toner, and a recovery roller recovering toner adhered on the bias roller and the cleaning blade;

said cleaning position determining member comprises a blade positioning member positioning the cleaning blade with respect to the frame body, the bias roller and the recovery roller; and

said cleaning blade, said bias roller and said recovery roller are independently replaceable.

6. The process cartridge as claimed in any of claims 1 to 5, further comprising:

a charging unit uniformly charging the latent image bearing member,

said charging unit being positioned with respect to the frame body at a non-overlapping position relative to the frame body position determining member, the developing position determining member and the cleaning position determining member.

7. The process cartridge as claimed in any of claims 1 to 6, wherein at least one of the latent image bearing member, the cleaning unit, the charging unit and the

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developing unit is replaced after removing the process cartridge from a main body of an image forming apparatus.

8. The process cartridge as claimed in any of
5 claims 1 to 7, wherein the latent image bearing member is inserted with a driving shaft provided in a main body of an image forming apparatus.

9. The process cartridge as claimed in claim 8,
10 wherein the frame body has a hole part for receiving the driving shaft.

10. The process cartridge as claimed in any of
claims 1 to 9, wherein said frame body comprises a discharge
15 unit and a detection unit.

11. The process cartridge as claimed in claim 10,
wherein said discharge unit comprises an electroluminescence
lamp.

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12. The process cartridge as claimed in claim 10
or 11, wherein said detection unit comprises a potential
sensor detecting a potential of the latent image bearing
member, a toner density sensor detecting an amount of toner on
25 the latent image bearing member, and a temperature and

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humidity sensor detecting a temperature and a humidity within the process cartridge.

13. The process cartridge as claimed in any of
5 claims 1 to 12, wherein electrical wirings for external connection are connectable via one location of the process cartridge.

14. The process cartridge as claimed in any of
10 claims 1 to 13, wherein said developing unit uses a toner having an average circularity in a range of 0.93 to 1.00.

15. The process cartridge as claimed in claim 14,
wherein the toner has a ratio of volume average particle size
15 and a number average particle size in a range of 1.05 to 1.40.

16. The process cartridge as claimed in claim 14
or 15, wherein the toner is made up of roughly spherical
particles with a ratio $r2/r1$ of a minor axis $r2$ and a major
20 axis $r1$ in a range of 0.5 to 1.0, a ratio $r3/r2$ of a thickness
 $r3$ and the minor axis $r2$ in a range of 0.7 to 1.0, and
satisfying a relationship $r1 \geq r2 \geq r3$.

17. The process cartridge as claimed in any of
25 claims 14 to 16, wherein the toner is made by subjecting a

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toner material solution to a cross linking reaction and/or an extension reaction within an aqueous medium, where the toner material solution is obtained by dissolving or dispersing, within an organic solvent, at least a polyester prepolymer having a functional group that includes nitrogen atoms, a polyester, a colorant and a mold releasing agent.

18. The process cartridge as claimed in any of claims 1 to 17, further comprising:

10 an accommodating part accommodating the toner or a newly supplied toner.

19. The process cartridge as claimed in any of claims 1 to 18, which is reusable by receiving a supply of toner.

20. The process cartridge as claimed in claim 19, further comprising:

an accommodating part accommodating a supplied toner.

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21. An image forming apparatus for visualizing a latent image formed on a latent image bearing member into a toner image, comprising:

at least one detachable process cartridge according to any of claims 1 to 20,

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at least one of the latent image bearing member and the developing unit being replaceable with respect to the process cartridge.

5 22. The image forming apparatus as claimed in claim 21, further comprising:

an accommodating part accommodating a supplied toner.

23. A process cartridge comprising:

10 a frame body;

a latent image bearing member supported by the frame body;

a developing unit supplying a toner to the latent image bearing member;

15 a developing position determining member positioning the developing unit with respect to the frame body;

a cleaning unit cleaning the toner on the latent image bearing member; and

20 a cleaning position determining member, disposed at a non-overlapping position relative to the developing position determining member, positioning the cleaning unit with respect to the frame body.

24. The process cartridge as claimed in claim 23,

25 wherein:

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said developing unit comprises a developing agent bearing member transporting a developing agent, and a magnet group provided inside the developing agent bearing member and having a predetermined main pole direction; and

5 said developing position determining member comprises a positioning member positioning the latent image bearing member and the developing agent bearing member, and an angular positioning member determining the main pole direction of the magnet group with respect to the latent image bearing member.

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25. The process cartridge as claimed in claim 23 or 24, wherein said frame body is made up of at least a first frame body and a second frame body that are movable relative to each other to form a space, said latent image bearing member is supported by the frame body and is replaceable via the space formed by the first and second frame bodies, and further comprising:

15 a frame body positioning member, disposed at a non-overlapping position relative to the developing position determining member, and positioning the first and second frame bodies.

26. The process cartridge as claimed in claim 23, wherein said cleaning unit is replaceable by removing the cleaning position determining member after the first and

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second frame bodies are moved relative to each other to form the space.

27. The process cartridge as claimed in claim 26,
5 wherein:

said cleaning unit comprises a cleaning blade removing residual toner on at least the latent image bearing member, a bias roller controlling an amount of charge of the residual toner, and a recovery roller recovering toner adhered on the
10 bias roller and the cleaning blade;

said cleaning position determining member comprises a blade positioning member positioning the cleaning blade with respect to the frame body, the bias roller and the recovery roller; and

15 said cleaning blade, said bias roller and said recovery roller are independently replaceable.

28. The process cartridge as claimed in any of claims 25 to 27, further comprising:

20 a charging unit uniformly charging the latent image bearing member,

said charging unit being positioned with respect to the frame body at a non-overlapping position relative to the frame body position determining member, the developing
25 position determining member and the cleaning position

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determining member.

29. An image forming apparatus for visualizing a latent image formed on a latent image bearing member into a toner image, comprising:

at least one detachable process cartridge according to any of claims 23 to 28,

at least one of the latent image bearing member, the developing unit and the cleaning unit being replaceable with respect to the process cartridge.

30. The image forming apparatus as claimed in claim 29, further comprising:

an accommodating part accommodating a supplied toner.

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31. A process cartridge configured to be detachable with respect to an image forming apparatus, comprising:

a latent image bearing member; and

at least three process units provided integrally with the latent image bearing member,

each of the latent image bearing member and the process units being independently replaceable.

32. The process cartridge as claimed in claim 31,

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wherein the three process units include a cleaning unit, a developing unit and a charging unit.

33. A process cartridge configured to be
5 detachable with respect to an image forming apparatus,
comprising:
a frame body;
a latent image bearing member supported by the frame
body; and
10 at least one process unit provided integrally with the
latent image bearing member and supported by the frame body,
the latent image bearing member and the at least one
process unit being independently replaceable.

15 34. The process cartridge as claimed in claim 33,
wherein the latent image bearing member and the at least one
process unit are replaceable without requiring other process
units to be removed.

20 35. The process cartridge as claimed in claim 33
or 33, wherein the latent image bearing member and the at
least one process unit is replaced after removing the process
cartridge from the image forming apparatus.

25 36. The process cartridge as claimed in any of

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claims 33 to 35, wherein the latent image bearing member is removable from the frame body without requiring the at least one process unit to be removed from the frame body.

5 37. The process cartridge as claimed in any of claims 33 to 36, comprising:

 a cleaning unit forming one process unit,

 wherein the latent image bearing member is removed from the frame body after rotating the cleaning unit.

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 38. The process cartridge as claimed in claim 37, further comprising:

 a cleaning position determining member positioning the cleaning unit with respect to the frame body.

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 39. The process cartridge as claimed in claim 37 or 38, wherein said cleaning unit comprises a coating mechanism including a coating roller and a lubricant body, said coating mechanism coating a lubricant on the latent image bearing member.

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 40. The process cartridge as claimed in claim 39, wherein said cleaning unit comprises a cleaning blade, and said lubricant body is replaceable.

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41. The process cartridge as claimed in any of claims 33 to 40, further comprising:

a charging unit forming one process unit,

wherein said frame body includes a recess that receives
5 the charging unit.

42. The process cartridge as claimed in any of claims 33 to 41, further comprising:

a developing unit; and

10 a developing positioning member positioning the developing unit with respect to the frame body.

43. The process cartridge as claimed in claim 42, wherein said developing position determining member positions
15 a developing reference shaft of the developing unit with respect to a hole in the frame body forming a bearing.

44. The process cartridge as claimed in any of claims 33 to 43, wherein said latent image bearing member
20 receives a driving shaft of the image forming apparatus when the process cartridge is loaded into the image forming apparatus.

45. The process cartridge as claimed in claim 44,
25 wherein said frame body includes a hole forming a bearing and

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receiving the driving shaft of the image forming apparatus.

46. The process cartridge as claimed in any of claims 33 to 45, further comprising:

5 a discharge unit provided on the frame body; and
 a detection unit provided on the frame body.

47. The process cartridge as claimed in claim 46, wherein said detection unit comprises a potential sensor
10 detecting a potential of the latent image bearing member, a toner density sensor detecting an amount of toner on the latent image bearing member, and a temperature and humidity sensor detecting a temperature and a humidity within the process cartridge.

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48. The process cartridge as claimed in any of claims 33 to 47, further comprising:

 an accommodating part accommodating the toner or a newly supplied toner.

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49. The process cartridge as claimed in any of claims 33 to 47, which is reusable by receiving a supply of toner.

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50. The process cartridge as claimed in claim 49,

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further comprising:

an accommodating part accommodating a supplied toner.

51. An image forming apparatus for visualizing a
5 latent image formed on a latent image bearing member into a
toner image, comprising:

at least one detachable process cartridge according to
any of claims 33 to 50,

at least one of the latent image bearing member, the
10 developing unit and the cleaning unit being replaceable with
respect to the process cartridge.

52. The image forming apparatus as claimed in
claim 51, further comprising:

15 an accommodating part accommodating a supplied toner.

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